

We claim:

1. A composition comprising a polypeptide consisting of an amino acid sequence according to general formula I

5 polypeptide consisting of an amino acid sequence according to general formula I:

X1-X2-X3

wherein X1 and X3 are independently absent or comprise a transduction domain; and

wherein X2 is [Z1-Z2-RRA-Z3-AP]_u, wherein

10 Z1 is absent or is W;

Z2 is absent or is L;

Z3 is selected from the group consisting of S, T, Y, D, E, phosphoserine analogs and phosphotyrosine analogs; and

u is 1-2, wherein when u is 2, the two copies of X2 are optionally

15 separated by a spacer.

2. A pharmaceutical composition comprising the composition of claim 1 and a pharmaceutically acceptable carrier.

3. An isolated nucleic acid sequence encoding the polypeptide of claim 1.

20 4. A recombinant expression vector comprising the nucleic acid of claim 3.

5. A host cell transfected with the recombinant expression vector of claim 4.

6. An improved biomedical device, wherein the biomedical device comprises one or more compositions according to claim 1.

25 7. Use of a composition comprising a polypeptide consisting of an amino acid sequence according to general formula II

X1-X2-X3

wherein X1 and X3 are independently absent or comprise a transduction domain; and

wherein X2 is [Z1-Z2-R-Z4-A-Z3-AP]_u, wherein

30 Z1 is absent or is W;

Z2 is absent or is L;

Z3 is selected from the group consisting of S, T, Y, D, E, phosphoserine analogs and phosphotyrosine analogs;

Z4 is R or S; and

u is 1-2, wherein when u is 2, the two copies of X2 are optionally

5 separated by a spacer, or functional equivalents thereof, for the preparation of a medicament for carrying out one or more of the following therapeutic uses:

(a) inhibiting smooth muscle cell proliferation and/or migration;

(b) promoting smooth muscle relaxation;

(c) increasing the contractile rate in heart muscle;

10 (d) increasing the rate of heart muscle relaxation;

(e) promoting wound healing;

(f) reducing scar formation;

(g) disrupting focal adhesions;

(h) regulating actin polymerization; and

15 (i) treating or inhibiting one or more of intimal hyperplasia, stenosis, restenosis, atherosclerosis, smooth muscle cell tumors, smooth muscle spasm, angina, Prinzmetal's angina, ischemia, stroke, bradycardia, hypertension, pulmonary hypertension, asthma, toxemia of pregnancy, pre-term labor and/or delivery, pre-eclampsia/eclampsia, intrauterine growth restriction, Raynaud's disease or phenomenon, hemolytic-uremia,

20 non-occlusive mesenteric ischemia, anal fissure, achalasia, sexual dysfunction, migraine, ischemic muscle injury associated with smooth muscle spasm, vasculopathy, bradyarrhythmia, congestive heart failure, stunned myocardium, and diastolic dysfunction.